

Best Management Practices

MISSOURI DEPARTMENT OF CONSERVATION



Greater prairie-chicken

Tympanuchus cupido

Common name • Greater prairie-chicken

Scientific name • *Tympanuchus cupido*

State status • Endangered

Ecology

Greater prairie-chickens once ranged throughout native prairies in central North America, from southern Canada to Texas. In Missouri, they historically occupied grasslands bordered by oak woodlands, savannas and wetlands. With declines in preferred habitat, prairie-chickens now inhabit cropland and nearby prairies mainly in the Osage Plains. In the spring, males gather on a booming ground, which is typically on a small rise or knoll where females observe males doing breeding displays. Peak mating activity usually occurs in March and early April. After copulation, females leave the lek to nest in a grassland within a mile of a lek that has thick horizontal and vertical cover, 9-28 inches in height. Females will lay only one clutch of eggs, unless the nest is destroyed. Renesting may occur as late as the end of June. Females incubate for 23-25 days. Broods disband by mid-August or when the young are approximately 80 days old. Greater prairie-chickens forage on the ground for succulent green leaves and pieces of broad-leaved grass or grasslike plants, seeds, cultivated grains and insects.

Reasons for Decline

The distribution of the greater prairie-chicken has diminished as prairie and woodland habitats have been converted to cropland or fescue. Native tallgrass prairies once covered 34 percent of Missouri but now occupy less than 0.5 percent of the land. Although habitat alteration is the primary cause of the decline of greater prairie-chickens, habitat fragmentation increases prairie-chicken predation by mammals and birds and competition between prairie-chickens and ring-necked pheasants (*Phasianus colchicus*), which further decimate populations of these birds.

Specific Recommendations

Greater prairie-chickens need large (> 160 acres) tracts of prairie or suitable grasslands for nesting, brood rearing and roosting cover. Most experts recommend that tracts of 2,000 acres are

necessary for sustainable populations. The optimum management of these large tracts should be approximately 70 percent grassland and 30 percent cropland in the vicinity of lek zones.

→ Revegetate disturbed areas with a diverse mixture of native warm-season grasses and forbs or with a mix of wildlife-friendly cool-season grasses, such as redtop or timothy, mixed with legumes.

→ Hay or mow prairies after July 31 and leave 4-6 inches of vegetation to give late-nesting birds a chance to rear young.

→ Burn fields if needed to control heavy litter accumulation or brush invasion on a three-five year interval rotation; burning should be done prior to March 15 or after July 31.

→ Always leave 4-6 inches of vegetation at the end of the growing season to provide residual cover for nesting birds the following spring.

→ Avoid use of herbicides, insecticides and pesticides during the breeding season (March 1-July 31) to prevent reducing the prairie-chickens prey base.

→ Avoid fragmenting large tracts of land.

→ Prairies or open fields adjacent to or near cropland should not be destroyed because they provide nesting habitat for this species.

→ Lightly graze grassland where prairie-chickens occur.

→ Retain dense grassland patches near cropland to provide winter cover.

Information Contacts

For further information regarding regulations for development near prairies, contact:

Missouri Department of Conservation
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Missouri Department of Natural Resources
Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102-0176
Telephone: 573/526-3315

U.S. Army Corps of Engineers
Regulatory Branch
700 Federal Building
Kansas City, MO 64106-2896
Telephone: 816/983-3990

U.S. Environmental Protection Agency
Water, Wetlands, and Pesticides Division
901 North 5th Street
Kansas City, KS 66101
Telephone: 913/551-7307

U.S. Fish and Wildlife Service
Ecological Services Field Office
608 E. Cherry Street, Room 200
Columbia, MO 65201
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